



6CD6-GA
BEAM POWER TUBE

Supersedes Type 6CD6-G

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage	6.3	ac or dc volts
Current	2.5	amp

Direct Interelectrode Capacitances (Approx.):°

Grid No.1 to plate	1.1	μμf
Grid No.1 to cathode & grid No.3, grid No.2, and heater	22	μμf
Plate to cathode & grid No.3, grid No.2, and heater	8.5	μμf

Characteristics, Class A_1 Amplifier:

Plate Voltage	60	175	volts
Grid-No.2 (Screen-Grid) Voltage	100	175	volts
Grid-No.1 (Control-Grid) Voltage	0	-30	volts
Mu-Factor, Grid No.2 to Grid No.1	-	3.9	
Plate Resistance (Approx.)	-	7200	ohms
Transconductance	-	7700	μmhos
Plate Current	230*	75	ma
Grid-No.2 Current	21*	5.5	ma
Grid-No.1 Voltage (Approx.) for plate current of 1 ma	-	-55	volts

Mechanical:

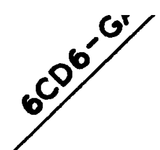
Mounting Position . . . . Vertical, base up or down, or Horizontal with pins 2 and 7 in vertical plane
Maximum Overall Length . . . . 5"
Seated Length . . . . 4-1/4" ± 3/16"
Maximum Diameter . . . . 1-9/16"
Bulb T-12
Cap . . . . Small (JETEC No.C1-1)
Base . . . . Short Medium-Shell Octal 8-Pin with External Barriers, Style A (JETEC No.B8-110), or Short Medium-Shell Octal 8-Pin with External Barriers, Style B (JETEC No.B8-118)
Basing Designation for BOTTOM VIEW 5BT

Pin 1 - No Connection
Pin 2 - Heater
Pin 3 - Cathode, Grid No.3
Pin 4 - No Connection
Pin 5 - Grid No.1
Pin 6 - No Connection
Pin 7 - Heater
Pin 8 - Grid No.2
Cap - Plate

° Without external shield.

* These values can be measured by a method involving a recurrent wave form such that the cathode current will be kept within ratings in order to prevent damage to the tube.

10-56 TENTATIVE DATA



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HORIZONTAL DEFLECTION AMPLIFIER

Maximum Ratings, *Design-Center Values Except as Noted:*

For operation in a 525-line, 30-frame system□

DC PLATE VOLTAGE	700	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE (Absolute maximum)⊕	7000■	max.	volts
PEAK NEGATIVE-PULSE PLATE VOLTAGE	1500	max.	volts
DC GRID-No.2 (SCREEN-GRID) VOLTAGE	175	max.	volts
DC GRID-No.1 (CONTROL-GRID) VOLTAGE	-50	max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 VOLTAGE	200	max.	volts
CATHODE CURRENT:			
Peak	700	max.	ma
Average	200	max.	ma
GRID-No.2 INPUT	3	max.	watts
PLATE DISSIPATION†	20	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200▲	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface)	225	max.	°C

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:			
For grid-resistor-bias operation†	0.47	max.	megohm

□ As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

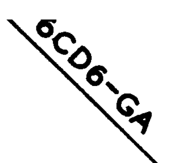
■ Under no circumstances should this absolute value be exceeded.

⊕ The duration of the voltage pulse must not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

† It is essential that the plate dissipation be limited in the event of loss of grid signal. For this purpose, some protective means such as a cathode resistor of suitable value should be employed.

▲ The dc component must not exceed 100 volts.





BEAM POWER TUBE

SMALL CAP
JETEC Nº C1-1

1 9/16" MAX.

T12 BULB

4 1/4" ± 3/16"

5" MAX.

SHORT
MEDIUM-SHELL
OCTAL 8-PIN BASE
WITH
EXTERNAL BARRIERS
STYLE A: JETEC NºB8-110
OR
STYLE B: JETEC NºB8-118

92CS-9012

TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY



6CD6-GA

AVERAGE CHARACTERISTICS

E_f = 6.3 VOLTS
GRID-№2 VOLTS = 175

GRID-№2 MILLIAMPERES (I_{C_2})

200 150 100 50

GRID-№1 VOLTS (E_{C_1}) = 0, −5, −10, −15, −20, −30

I_b

I_{C_2}

E_{C_1} = 0, −15, −30

PLATE VOLTS

0 100 200 300 400 500

700 600 500 400 300 200 100 0

PLATE MILLIAMPERES (I_b)

92CM-9017

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6CD6-GA



6CD6-GA



AVERAGE CHARACTERISTICS

E_f = 6.3 VOLTS
GRID-No 1 VOLTS = 0

GRID-No 2 MILLIAMPERES (I_{c_2})
200 150 100 50

GRID-No 2 VOLTS (E_{c_2}) = 100
EC2=175 150 125 75 50
I_b
I_{c_2}
EC2=175 150 125 100

PLATE VOLTS
500 400 300 200 100 0

700 600 500 400 300 200 100 0
PLATE MILLIAMPERES (I_b)

92CM-9016

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